REMARKS

Claims 1-7, 9-11, and 13-23 are pending. Claims 1, 4, 7, 11, 15, and 21 have been amended.

Applicant would like to thank the Examiner for consideration of applicant's amendments during the interview of January 10, 2006.

Claims 1-7, 9-11, and 13-23 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/659,407 in view of Hogle et al. (U.S. Patent No. 6,560,626). These claims were the subject of a restriction requirement in parent Application No. 09/192,205. Claims 1-7, 9-11, and 13-23 of the present application are derived from the claims of Group III of the restriction requirement. Claim 1 of copending Application No. 10/659,407 is derived from the claims of Group I of the restriction requirement. In making the restriction requirement, the Examiner has asserted that the claims of each group are directed to different inventions. Accordingly, applicant is puzzled by the provisional double patenting rejection and requests clarification.

Claims 1-7, 9-11, and 13-23 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hogle et al. in view of Jones et al. (U.S. Patent No. 6,584,489). Applicant believes that the amendments to the claims address the Examiner's concern and respectfully traverses this rejection.

Hogle is directed to terminating a blocked thread without using excessive resources. The technique described by Hogle involves two threads, a first alertable thread that is blocked, and a second interrupting thread that wants to terminate the blocked thread. The second thread terminates the blocked thread by queuing an asynchronous procedure call (APC) against the blocked thread, which causes the operating system to wake up the blocked thread and throw an exception in the blocked thread's context that can be caught by user program code.

In contrast, applicant's technology does not relate to terminating blocked threads, but rather to providing a processor stream to a task when a thread of the task makes an operating system call that blocks. Using applicant's techniques, another thread of the task will run on a stream provided by the operating system while the call is blocked.
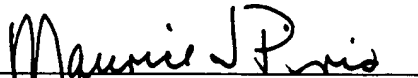
The Examiner has argued that a stream as recited in applicant's claims can be broadly interpreted as a resource and since Hogle teaches a resource, therefore Hogle teaches a stream. Office Action, July 22, 2005, p8. A stream as used by applicant is a hardware entity. A stream is similar to a thread in that both are units of execution. However, a stream differs from a thread because a thread is a software entity created by an operating system, whereas a stream is a physical capability of the processor. A stream is used in this way throughout applicant's specification. (streams are in the processor, Specification, ¶3, "multiple streams executing simultaneously in each processor"), (each stream has hardware registers, Specification, ¶3, "[e]ach processor contains a complete set of registers 101a for each stream"), (a thread executes on a stream, Specification, ¶4, "[e]ach thread of execution executes on one of the 128 streams supported by an MTA processor"). Applicant believes that when properly interpreted in the context of the specification, a stream as recited by applicant's claims is a hardware entity distinguishable from the resource in Hogle. Applicant has amended the claims to further make this difference explicit. In particular, the claims now recite that a thread executes on a stream. For example, claim 1 recites "a thread of the task executing on a first stream."

Jones is directed to various techniques for scheduling threads within an operating system. Applicant's technology uses a processor having multiple streams executing simultaneously, and does not require the kind of scheduling techniques necessary in the type of system described by Jones. Applicant's streams are features within the hardware, whereas the threads scheduled in Jones are operating system concepts within software. Therefore, neither Hogle nor Jones, either alone or in combination, teach all of the limitations recited by applicant's claims. Accordingly, applicant respectfully requests that this rejection be withdrawn.

In view of the above amendment, applicant believes the pending application is in condition for allowance and requests reconsideration. If the Examiner has any questions or believes a telephone conference would expedite prosecution of this application, the Examiner is encouraged to call the undersigned at (206) 359-8548.

Dated: January 23, 2006   Respectfully submitted,

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